PAFOS MANUAL

CHAPTER 1

SUPPLY SUPPORT OVERVIEW

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CHAPTER 1

SUPPLY SUPPORT OVERVIEW

1.1 INTRODUCTION

Integrated Logistics Support (ILS) is the process used to ensure that all support elements necessary to provide adequate logistics support to Navy systems and equipment are properly planned, acquired, and sustained. The ten ILS elements defined in DOD Instruction 5000.2 (series), Part 7 are:

1) Maintenance Planning

2) Manpower and Personnel

3) Supply Support

4) Support Equipment

5) Training and Training Support

6) Technical Data

7) Computer Resources Support

8) Packaging, Handling, Storage, and Transportation

9) Facilities

10) Design Interface

Each of the ILS elements is a complicated process, and supply support is no exception. Supply support involves everything necessary to have material available when needed by a ship or shore activity to maintain and operate installed equipment. Stated another way, supply support consists of all the actions, procedures, and techniques necessary to determine requirements, acquire, catalog, receive, store, transfer, issue, and dispose of the repair parts and consumable supplies, whether located onboard ship, at a shore activity, or in the supply system, needed to maintain Navy systems and equipment. This chapter provides a basic understanding of how the Navy Supply System is organized, how it works, and what is involved in establishing supply support.

Several important concepts will be introduced to provide an understanding of the supply support responsibilities of the Naval Sea Systems Command (NAVSEA) as a Hardware Systems Command (HSC).

1.2 NAVY ORGANIZATIONAL STRUCTURE

Figure 1-1 displays a segment of the Navy's organizational structure and the types of activities that have important responsibilities in the processes required to provide supply support to the Fleet. After discussing the key milestones in the supply support process, the role of the activities will be addressed.

1.3 KEY MILESTONES

The procedures needed to provide full Navy support to a weapon, system, or equipment can be very time consuming. For this reason, it is necessary to initiate supply support planning well in advance of the scheduled deployment of a system. Discussions of the key supply support milestones in planning and acquiring full Navy support for a weapon system or equipment follow.

1.3.1 Material Required Date (MRD)

The MRD is the date material is required to support the end item (system or equipment) installation. It is defined as 365 days prior to the Preliminary Operational Capability (POC) for newly constructed ships, 180 days before the POC for backfit ships, and 90 days before the POC for shore installations.

1.3.2 Preliminary Operational Capability (POC)

POC is the attainment of the capability for a weapon, equipment, or system to be used by operational units and to function in a manner that is preliminary to, but in support of, the achievement of Initial Operational Capability (IOC). In other words, at POC a system or equipment can be used by a ship, but all the logistics support required for sustained, self-sufficient use is not in place -- either on an interim basis or as planned for the life of the equipment.

1.3.3 Initial Operational Capability (IOC)

IOC is the attainment of the capability to effectively employ a weapon, equipment, or system, which is manned or operated by an adequately trained, equipped, and supported military unit or force. Unlike POC, at IOC all ILS elements must be in place, either on an interim basis or as planned for the life of the equipment.

SUPPLY SUPPORT ORGANIZATION

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┌──────────────────┐              ┌──────────────────┐
│ Asst. Secretary of│              │       CNO        │
│  the Navy (RD&A)  │              │                  │
└──────────────────┘              └──────────────────┘

        ┌──────────────┐                      ┌──────────────┐
        │    Fleet     │                      │    Shore     │
        │  Commands    │                      │  Commands    │
        └──────────────┘                      └──────────────┘

┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│  PEO/DRPM    │···│   NAVSEA     │   │   NAVSUP     │
└──────────────┘   └──────────────┘   └──────────────┘

┌────────┐  ┌────────┐  ┌────────┐   ┌──────────┐  ┌──────────┐
│ ISEAs  │  │  CDMs  │  │  DOPs  │   │  NAVICP  │  │  Stock   │
└────────┘  └────────┘  └────────┘   └──────────┘  │  Points  │
                                                    └──────────┘
        ┌────────┐  ┌────────┐
        │  TSAs  │  │  NSAs  │
        └────────┘  └────────┘
```
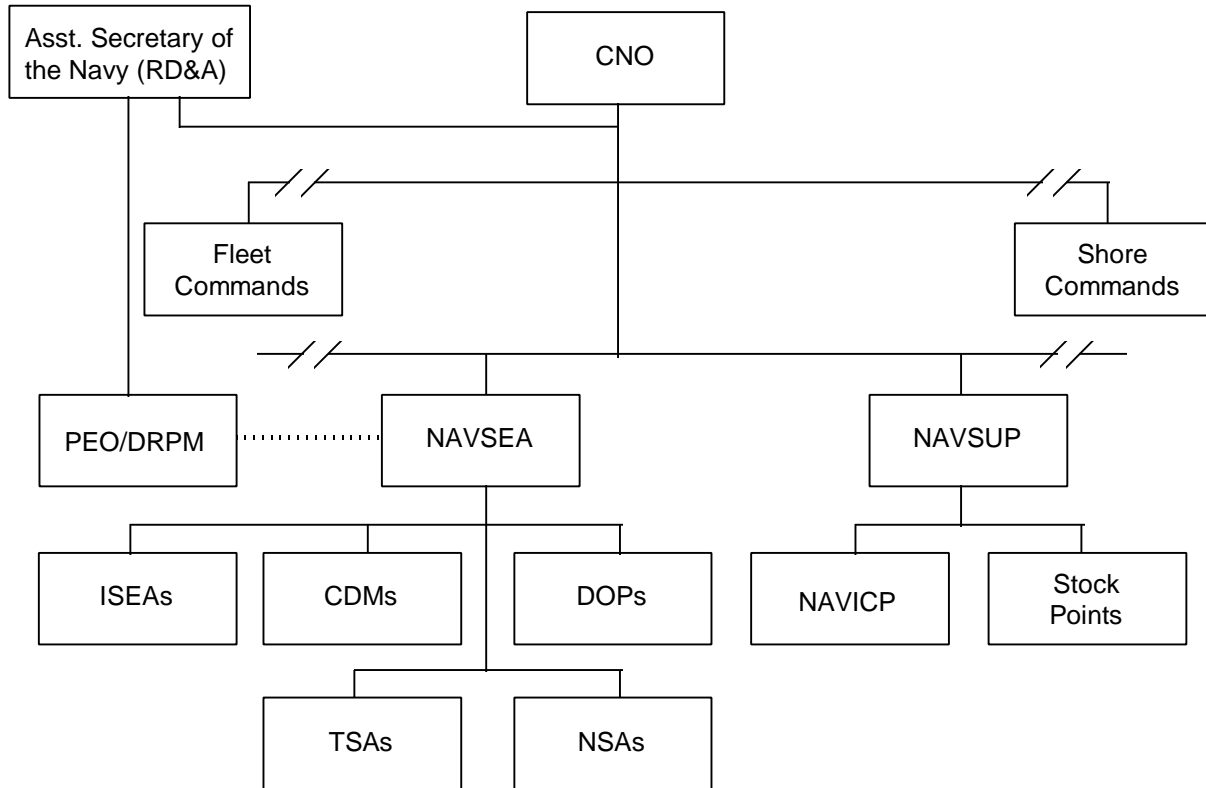
Figure 1-1   The activities depicted play an important role in providing supply support to the Fleet and shore activities.

1.3.4 Material Support Date (MSD)

The MSD is the date when the Program Support Inventory Control Point (PSICP) (see paragraph 1.4.2.2) is responsible for providing material support for both retail outfitting and wholesale requirements from the supply system. Retail outfitting requirements are the items which will be "purchased" from the supply system and placed onboard ships as initial outfitting items. Wholesale requirements are the items stored by the supply system to replace the items initially placed on ships once they are used.

Negotiation of MSD should begin during the Concept Demonstration/Validation (CD/V) phase of the acquisition of the equipment/system, with an agreeable date formally set during the Engineering and Manufacturing Development (EMD) phase. The MSD will be negotiated by the HSC and the PSICP and documented in the Integrated Logistics Support Plan (ILSP), Supply Support Management Plan (SSMP), and related Program Support Data (PSD) Sheets. Once MSD is established, any changes or revisions must be formally submitted jointly by the HSC and PSICP for Naval Supply Systems Command (NAVSUP) and, if required, OPNAV approval.

1.3.5 Navy Support Date (NSD)

The NSD is the date on which **all** logistics support can be provided from organic Navy resources. Since MSD is the date when material can be provided by the supply system, NSD can never occur prior to MSD.

1.4 RESPONSIBILITIES

As shown by Figure 1-1, the ultimate recipients of supply support, the Fleet and shore commands, are outside the organizational structure of both NAVSEA and NAVSUP. NAVSEA, NAVSUP, and their respective field activities are instrumental in developing and providing supply support. Their general supply support responsibilities are listed below.

NAVSEA and Field Activities	NAVSUP and Field Activities
End Item Procurement	Provisioning Processing
Program Control and Logistics Support Policy	Supply and Transportation Policy
Provisioning Policy and Data Preparation	Allowance List Development
Technical and Engineering Guidance	Defense Business Operating Fund (DBOF) Operation
Program Support Data (PSD)	Inventory Management
Integrated Logistics Support Plan (ILSP)	Secondary Item Procurement
Budgeting for Interim Supply Support and Outfitting	Receipt, Storage, and Issue of Repair Parts
Procurement, Review, and Approval of Provisioning Technical Documentation (PTD)	Repairable Item Management
Configuration Management, Control, and Accounting	Buy-in of Outfitting Spares
Interim Supply Support	
Buy-out of Outfitting Spares	
Repair/Disposal of Repairable Items	
Outfitting/Fitting Out	

A more detailed list of NAVSEA and NAVSUP supply support responsibilities and their relationship to the life cycle of a ship, system, or equipment are depicted by Figure 1-2. These supply support responsibilities are discussed in paragraphs 1.4.1 and 1.4.2.

1.4.1 NAVSEA and Field Activities

The majority of NAVSEA's supply support responsibilities are associated with actions that occur early in the ship's, system's, or equipment's life cycle and well before the POC date. They are designed to enable supply support to be in place so that NAVSUP and its activities can provide supply support after the MSD. Efforts should be made to ensure MSD occurs prior to, or concurrent with, POC. The balance of NAVSEA's supply support responsibilities primarily concern configuration management and repair/disposal of repairable items. Configuration management is the process of documenting changes to a ship's equipment configuration, and is discussed in more detail in paragraph 1.8 and in Chapter 7. The principal types of NAVSEA field activities which have supply support responsibilities and a brief discussion of their, and NAVSEA's, supply support responsibilities follow.

SUPPLY SUPPORT RESPONSIBILITIES

NAVSEA Responsibilities		NAVSUP Responsibilities

```
                Approve System   -
                                 -
                                 -
                Prepare PSD      -    Prepare Buy-In Outfitting
     Prepare Buy-Out Outfitting  T    Budget
                      Budget     I
                                 M    -
                                 E    -
               Award Contract:   E    -
                    * End Item
                    * PTD        -
                    * ISS Option -    T
                                 -    I
                 Prepare ILSP         M
                                      E
         Assess Supply Readiness      -
                                 -    -
         Review and Approve PTD   -   -
                                      -
      Provide Provisioning Data   T   Load Provisioning Data
                                  I   Make Provisioning Decisions
                                  M   Prepare Allowance Documents
                                  E   Calculate Requirements
                                  -   Initiate Provisioning Buys
                                  -   Buy-In Outfitting Material
```

Preliminary Operational Capability (POC)

```
       Provide ISS (if needed)
```

Material Support Date (MSD)

```
 Buy-Out Outfitting Material          Provide Normal Supply Support
                                         * Material Issue
       Repair/Condemn Repairable         * Inventory Management
                          Items
```

Figure 1-2   NAVSEA and NAVSUP responsibilities for
                    establishing supply support.

1.4.1.1 NAVSEA 041

The NAVSEA Fleet Logistics Support Directorate, Material Support Division (NAVSEA 041) is responsible for establishing material support policy for NAVSEA managed programs and to monitor compliance with that policy. In this capacity, NAVSEA 041 provides policy, procedures, and guidance in all areas of Integrated Logistics Support (ILS) which impact the material support of NAVSEA managed ship, equipment, and weapon system acquisition programs. Specifically, they provide policy, procedures, and assistance for ILS planning, provisioning, budgeting, Interim Supply Support (ISS), Shipbuilding and Conversion, Navy (SCN) outfitting, and Other Procurement, Navy (OPN) outfitting. NAVSEA 041 manages the Active Fleet Outfitting Account, which funds the initial allowances of spares, repair parts, and consumable supplies resulting from alterations to shipboard equipment and from total equipment changes.

1.4.1.2 NAVSEA Acquisition Program Managers

In this chapter, the generic term acquisition program manager is used to include: Program Executive Office (PEO), Direct Reporting Program Manager (DRPM), Ship Program Manager (SPM), a system/equipment acquisition manager (often referred to as a Participating Manager [PARM]). The responsibilities of the PEOs and DRPM are unique with regard to the specific program being managed and the charter is the best determinate of the role they play in each acquisition. In some cases, they function as a SPM, whereas in another situation they function as a system/equipment acquisition manager or PARM. SPMs are responsible for ships, and PARMs are responsible for systems or equipment. With the expanded life cycle role, the acquisition program manager's responsibilities discussed in this paragraph are absorbed by the Life Cycle Manager (LCM). In the area of supply support, the acquisition program manager is responsible for complying with the ILS policy and procedures established by DODINST 5000.2 (series), SECNAVINST 5000.2 (series), and NAVSEA 041. While all aspects of supply support are important to the successful support of a ship or weapon system, compliance with provisioning policy and procedures is a key to ensuring satisfactory support.

The development of the maintenance concept and plan, which specify the method of support and the level of support to be established at each of the three levels of maintenance, is principal among the acquisition program manager's responsibilities during the early portion of the acquisition cycle. The three levels of maintenance are:

1) Organizational ("O") level: This level is essentially the end user, such as a ship.

2) Intermediate ("I") level: This level normally has more maintenance capability than the "O" level. It usually includes tenders, repair ships, and Shore Intermediate Maintenance Activities (SIMAs).

3) Depot ("D") level: This level has the most maintenance capability and can normally overhaul/repair items completely, which it is certified to do. Original Equipment Manufacturers (OEMs) and Naval shipyards are routinely "D" level activities.

Determining the maintenance concept and plan dictates the level of supply support required at each of the three maintenance levels. The acquisition program manager is also responsible for acquisition of the technical data required by the provisioning process. This requires budgeting for acquisition of the data and development of the contractual provisions specifying the PTD required to support the maintenance concept and plan. Further discussion of the acquisition program manager's role in provisioning and definitions of provisioning terms are contained in Chapter 4.

If the development of the system or equipment has the equipment in operational use prior to the MSD, Interim Supply Support (ISS) is required to provide repair part support until "normal" support is provided by the PSICP at MSD. When ISS is required, the acquisition program manager is responsible for developing and funding the ISS program. This includes: acquisition of repair parts, spares, and Operating Space Items (OSIs); determination of ISS items; funding the contractor warehouse, if required; and funding the contractor or government activity depot for repair of repairable items. ISS is discussed in more detail in Chapter 5, which also describes an ongoing partnership initiative between NAVSEA and NAVSUP to both compress the ISS period and assign asset management responsibility during ISS to the PSICP. In addition to funding ISS efforts, equipment and system acquisition program managers are responsible for funding any Maintenance Assistance Modules (MAMs) and Installation and Check Out (INCO) kits required to support their system/equipment.

The acquisition program manager is also responsible for development and submission of PSD sheets used to develop funding requirements and to establish the MSD, the date after which all material support will be provided by government activities. The Program Support Inventory Control Point (see paragraph 1.4.2.2) uses PSD to establish the Defense Business Operating Fund (DBOF) "Buy-In" budget. This budget is used to make the DBOF's initial procurement of spares and equipment to satisfy initial outfitting, follow-on outfitting, and continuing supply support.

During the operating cycle, the acquisition program manager is responsible for the development or approval of alterations and field changes for equipment installed on ships under his/her responsibility. PSD must be developed and submitted to provide satisfactory supply support for the equipment after the alteration

or field change has been accomplished. NAVSEA 041 also uses this PSD to budget for the Active Fleet Outfitting Account which funds the initial allowances of spares, repair parts, consumable supplies, and OSIs resulting from the alteration.

1.4.1.3 In Service Engineering Agent (ISEA)

ISEAs provide engineering (including design alterations and modifications), technical, and logistics management support for assigned weapon systems and subsystems. Examples of ISEAs are:

- Naval Surface Warfare Center, Crane Division

- Naval Undersea Warfare Center Division, Keyport, WA

- Naval Ship Systems Engineering Station, Carderock Division, Naval Surface Warfare Center, Philadelphia, PA

- Port Hueneme Division, Naval Surface Warfare Center, Port Hueneme, CA

1.4.1.4 Technical Support Activity (TSA)

TSAs are engineering activities which are designated by a NAVSEA acquisition program manager to perform the technical and engineering functions associated with the provisioning of a system or equipment. TSAs receive and review PTD for acceptance or rejection. After verification of the technical coding contained in that PTD or after assigning that coding, the TSA forwards approved PTD to the Program Support Inventory Control Point (PSICP), normally the Navy Inventory Control Point (NAVICP) (formerly the Ships Parts Control Center [SPCC]) for NAVSEA equipment, for further processing. Typically, the activity that performs the ISEA function, also performs the TSA function for the same system/equipment.

1.4.1.5 Naval Supervising Activity (NSA)

NSAs are responsible for supervising and overseeing the construction, conversion, modernization, overhaul, or repair of U.S. Navy ships. NSAs are also responsible for ensuring that PTD is procured/prepared/submitted for both standard and non-standard equipment required for installation, and that material is received by the ship or a meaningful shortage list is provided. An NSA is almost always either a Naval Shipyard or a Navy Supervisor of Shipbuilding, Conversion, and Repair (SUPSHIP).

1.4.1.6 Configuration Data Manager (CDM)

A CDM is assigned by the NAVSEA SPM for a ship or ship class. The CDM is responsible for maintaining configuration data and associated logistics support and technical data in the Ship Configuration and Logistic Support Information (SCLSI) database for assigned ships. More detailed discussions of the SCLSI System and of the responsibilities of a CDM are contained in Chapter 7. A CDM may be either a Navy activity or a commercial contractor. Examples of CDMs are:

- Naval Shipyards

- Naval Sea Support Centers

- Selected Commercial Shipbuilders

- Selected SUPSHIPs

1.4.1.7 Designated Overhaul Point (DOP)

DOPs are responsible to evaluate failed repairable parts/components and either condemn them as beyond repair or return them to fully serviceable condition. A DOP may be either a Navy, other Department of Defense (DOD), or commercial activity and must be certified by a cognizant NAVSEA activity before it is permitted to repair failed items. At least one DOP is assigned to each item that has been designated as a Depot Level Repairable (DLR). While Navy activities which are DOPs are usually field activities of NAVSEA or other HSCs, it is the inventory manager that schedules the actual repair of material at the DOP (see paragraph 1.4.2.1). Examples of DOPs are:

- Original Equipment Manufacturers

- Naval Ordnance Stations

- Naval Shipyards

1.4.2 NAVSUP Field Activities

The majority of NAVSUP's supply support responsibilities are associated with actions that occur after the POC date, but some of them occur well before that date to ensure that organic Navy supply support is in place at the MSD date. NAVSUP's primary supply support responsibility is to provide organic, Navy supply support from MSD until the end of a system's/equipment's life. The major types of NAVSUP field activities which have supply support responsibilities and a brief discussion of those responsibilities follows.

1.4.2.1 Inventory Control Point (ICP)

The primary responsibility of an ICP is the inventory management of groups of items either for a particular service or for the DOD as a whole. Inventory management in this context includes cataloging file preparation, requirements determination, procurement package development, DBOF budgeting, distribution management, and repair- able item management. ICPs maintain visibility and control over material located at stock points throughout the world through a system of on-line daily and monthly reports. Of the over 2.5 million items used by the Navy, only about 18% of the items are managed by Navy ICPs, with about 76% managed by Defense Logistics Agency (DLA) ICPs. The DLA has ICPs for general, industrial, construction, personnel, and electronics commodities. NAVICP, the consolidation of SPCC and the Aviation Supply Office (ASO), is the sole Navy ICP.

NOTE: Until recently, the percentages were about 25% managed by Navy ICPs and about 69% managed by DLA. An on-going initiative to transfer management of as many parts as possible to DLA has resulted in the current percentages, and will cause the DLA portion to continue to grow, while the Navy managed portion will decline.

1.4.2.2 Program Support ICP (PSICP)

A PSICP is responsible for ensuring that provisioning information provided to it is properly processed so that accurate allowance lists are produced and that the repair parts required for the operation and maintenance of assigned systems and equipment are accepted for supply support by an appropriate ICP. In performing this responsibility, the PSICP completes the provisioning process by adding supply management coding. The PSICP then coordinates requirements for spare and repair parts with other Navy and non-Navy ICPs. Each Navy system and equipment is assigned to a Navy PSICP to ensure total material support is available throughout its operational life. NAVICP Mechanicsburg (NAVICP-M) is the PSICP for NAVSEA systems and equipment.

1.4.2.3 Stock Point

Stock points are responsible to carry items of supply as directed by an inventory manager for issue to Fleet units and shore activities. Stock points provide daily reports to the appropriate ICP of all issues, receipts, and other actions which affect inventory on-hand balances. Navy stock points that carry material for NAVICP include Fleet and Industrial Supply Centers (FISCs) – formerly Naval Supply Centers (NSCs) or Naval Supply Depots (NSDs) – and selected other activities which have a Fleet support mission. It should be noted that the warehousing functions of receipt, storage, issue, packing, and shipping are now performed by DLA personnel at most FISCs.

FISC Puget Sound has unique missions in the outfitting arena. FISC Puget Sound is the Outfitting Supply Activity (OSA) for new construction ships and SCN funded conversion ships. The OSA processes all initial outfitting requisitions for SCN funded ships. FISC Puget Sound is also the Technical Operating Budget (TOB) holder for NAVSEA 041. As such, FISC Puget Sound receives and processes all requisitions charging the Active Fleet Outfitting Account, which is discussed in paragraph 1.4.1.1.

1.4.3 Monitoring Activities

In addition to the supply support responsibilities of NAVSEA, NAVSUP, and their respective field activities discussed in the preceding paragraphs, certain field activities of NAVSEA or NAVSUP have monitoring responsibilities for supply support. NAVSEA field activities with supply support monitoring responsibilities include Naval Sea Logistics Center (NAVSEALOGCEN) for active fleet ships and SUPSHIPs for applicable new construction, conversion, modernization, overhaul, and repair activity. NAVSUP field activities with supply support monitoring responsibilities include Fitting Out Supply Support Assistance Center (FOSSAC) for new construction and NAVICP-M Platform Managers for specific ship types/classes.

1.5 MATERIAL IDENTIFICATION

People dealing with the supply system need to understand the terminology used to identify material in the supply system. Material is often referred to by part number, reference number, National Stock Number (NSN), National Item Identification Number (NIIN), Navy Item Control Number (NICN), and Cognizance Symbol (COG). These terms are discussed below.

1.5.1 Part Number

The part number is normally assigned by the manufacturer and may include the manufacturer's part, drawing, model, type, and source controlling numbers plus the manufacturer's trade name. The part number may also be other identification numbers, such as a government drawing number. It may be any number of alpha-numeric characters, but the maximum length is 32 characters in DOD cataloging because of computer program design. Part numbers are sometimes referred to as reference numbers, and the terms are synonymous. Some examples of part numbers are:

- A

- 235

- ARP568-011MILR1149TY2CW5

As can be seen from the above examples, a part number alone is not enough to identify an item since the same number could be assigned to different parts by multiple manufacturers. The Commercial and Government Entity (CAGE) code must be used in conjunction with a part number to identify a unique item. The CAGE code is a unique, numeric and/or alphabetic, five digit code assigned to an individual supplier, manufacturer, corporation, or government activity and was previously called the Federal Supply Code for Manufacturers (FSCM). For example, the CAGE code 58325 denotes U.S. Lighting Corp.; 4400 Stamp Road, Suite 409; Temple Hills, MD.

1.5.2 National Stock Number (NSN)

The NSN is a 13 digit number assigned by the Defense Logistics Services Center (DLSC) that uniquely identifies an item of material in the supply system. A NSN consists of a four digit Federal Supply Classification (FSC) and a "stand alone" nine digit National Item Identification Number (NIIN).

NATIONAL STOCK NUMBER (NSN)
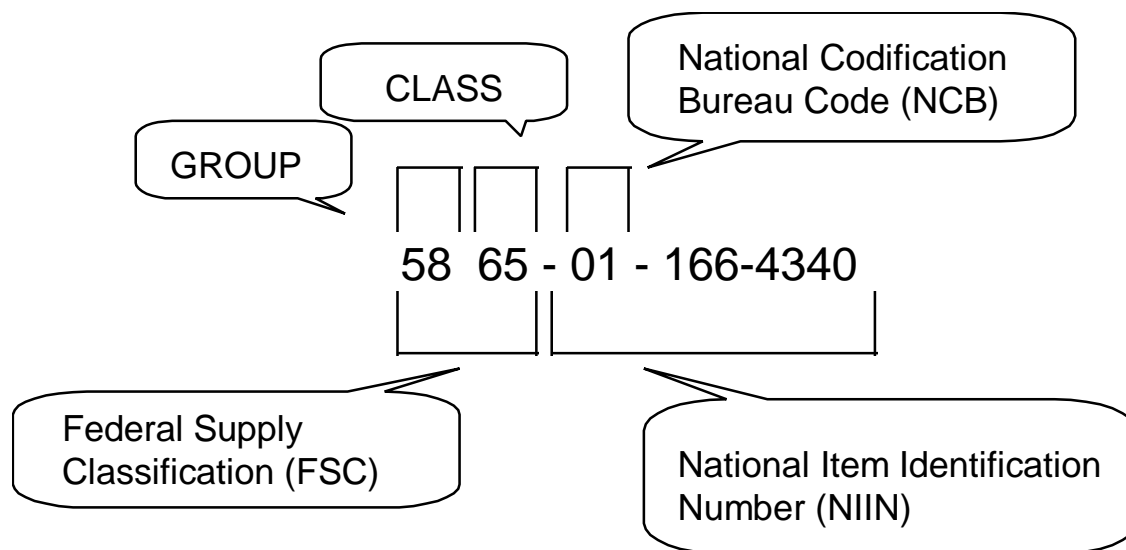
The first four digits of the NSN are the FSC, which identifies the item to a category of material. The first two digits of the FSC are called the Federal Supply Group (FSG) and denote a broad generic class of material. There are currently 76 FSGs in use, some examples of which are:

    Group 43 - Pumps and Compressors

    Group 48 - Valves

    Group 59 - Electrical & Electronic Equipment Components.

As a further subdivision, each FSG is divided into Classes by adding two digits to the FSG, thus completing the four digit FSC.

For example, Group 59 is divided into numerous Classes including:

    Class 5905 - Resistors

    Class 5910 - Capacitors

    Class 5920 - Fuses & Lighting Arrestors

    Class 5935 - Connectors, Electrical

    Class 5990 - Synchros & Resolvers

Thus, the FSC categorizes like items of supply. It should be noted that FSC 0098 is assigned to Interim Supply Support (ISS) items.

The remaining nine digits of the NSN are the NIIN, which is a unique number assigned to one and only one item of material. The first two digits of the NIIN are the National Codification Bureau (NCB) code, which indicates the North Atlantic Treaty Organization (NATO) country that cataloged the item. (Note: DLSC is the NCB for the United States.) Examples of NCB codes are:

    00   United States

    01   United States

    12   Germany

    21   Canada

    31   Israel

    99   United Kingdom

Alpha NCB codes, e.g. LL, indicate the item has not been, or will not be, cataloged by DLSC and is either a local stock number or a Navy Item Control Number (NICN). The remaining seven digits of the NIIN have no significant meaning and are just sequentially assigned by the cataloging country.

1.5.3 Navy Item Control Number (NICN)

Because the Navy needs a fixed-length number for computer program applications, a 13 digit NICN is assigned to material not included in the Federal Catalog System. A NICN has the same general structure as a NSN, but has an alphabetic NCB Code. The currently authorized NCB codes for NICNs are:

Code	Application
LD	Directives Ordering
LE	Poseidon Items Common to Trident
LF	I COG (forms)
LK	Aircraft Change Kit Numbers
LP	0I and 0P COGs (publications)
LS	SSP Alteration Kit Numbers
LX	Local Numbers Assigned by NAVICP-P Field Activities
LL	All Other Control Numbers Assigned by an ICP or Other Navy Item Manager

A Temporary NICN (T-NICN) may be assigned by an ICP or other Navy item manager to an item when NSN assignment by DLSC is anticipated. In this situation, the FSCs used for T-NICNs are 0099 for items anticipated to be managed by DLA and the actual FSC for items expected to be managed by NAVICP-M, e.g. 5840. A Permanent NICN (P-NICN) is assigned by an ICP or other Navy item manager to items not meeting criteria for NSN assignment, but which are monitored or stocked in the Navy supply system. While their use is decreasing, examples of uses of P-NICNs are items fabricated at the organizational level, obsolete items, and Foreign Military Sale (FMS) items. P-NICNs have:

- FSCs other than "0099" or the actual FSC is normally used

- NCB of "LL"

- Alphabetic characters in the seventh through ninth positions of the NICN (the positions immediately following the NCB)

- Numeric characters in the last four (tenth through thirteenth) positions of the NICN

An example of a P-NICN is: 0000-LL-CMB-6876.

1.5.4 Cognizance Symbol (COG)

The COG is a two character numeric-alphabetic Naval code that designates the type of funds used to purchase an item and the activity that is the inventory manager of the item. An odd number in the first position indicates the item is funded by the DBOF and must be paid for by a customer. An even number in the first position signifies the item was paid for with Appropriation Purchase Account (APA) funds; e.g., Other Procurement, Navy (OPN) and Weapon Procurement, Navy (WPN) funds; and is issued to the end user without charge. The COG is often used as a prefix for the NSN to more completely identify an item. Examples of COGs managed by NAVSEA and NAVICP-M are:

COG	Inv Mgr	Tech Resp	Description
0J	NAVICP-M	Various commands	Interim support items for 1H and 3H COG material
0O	NAVICP-M	NAVSEA	Interim support items for 7H COG material
1H	NAVICP-M	Various commands	Consumable material relating to shipboard equipment and systems
2F	NAVSEA	NAVSEA	Major shipboard electronic equipment
2J	NAVSEA	NAVSEA	Major shipboard ordnance equipment
2S	NAVSEA	NAVSEA	Major shipboard Hull, Mechanical, and Electrical (HM&E) equipment
3H	NAVICP-M	Various commands	Field (organizational/intermediate) level repairable material relating to shipboard equipment and systems
7H	NAVICP-M	NAVSEA	Depot level repairable shipboard and base equipment assemblies, repair parts, and components relating to NAVSEA equipment and systems.

1.6 PROVISIONING

Provisioning is the process of determining which material and how much of that material is necessary to support and maintain a system or equipment for all levels of maintenance (organizational, intermediate, and depot levels) for an initial period, not to exceed two years. A lot of information is required to make good decisions on what material and how much is needed. While a brief discussion of provisioning follows, detailed discussions of the provisioning process, including provisioning "tools," are contained in Chapter 4.

1.6.1 Maintenance Plan

As mentioned in paragraph 1.1, maintenance planning is one of the ten ILS elements. The maintenance plan is, arguably, **the** key document in provisioning. The maintenance plan states the maintenance system or equipment needed and at what maintenance level each maintenance action will be performed. For example, brushes on a motor are to be replaced at the organizational level, the motor is to be rewound at the intermediate level, and the motor may only be completely rebuilt (or condemned for disposal) at the depot level.

1.6.2 Provisioning Technical Documentation (PTD)

Most of the other information required for successful provisioning is obtained from PTD. PTD is the generic term used for various types of provisioning data (provisioning data files, provisioning lists, drawings, specifications, etc.) bought from an equipment manufacturer. Provisioning data describe each part within a system/equipment in sufficient detail to enable the Navy to make good decisions about maintaining that system/equipment. The data are used by the Navy for the identification, selection, and determination of initial requirements for spare and repair parts. After submission by the manufacturer and approval and coding by the TSA, PTD is forwarded to the PSICP for processing.

1.6.3 Provisioning Tools

Numerous "tools" are available to assist provisioning personnel in the provisioning process. Some of the more important ones are:

* Logistics Support Analysis (LSA)

* Failure Mode, Effects, & Criticality Analysis (FMECA)

* Reliability Centered Maintenance (RCM)

* Level of Repair Analysis (LORA)

Most of these tools are relatively complex, and this paragraph only lists some of the major ones.

Since hardly any equipment in use in the Navy is retired from service in exactly the same configuration as when it entered service due to part substitutions and improvements, the provisioning process is almost always a continuous process.

1.7   ALLOWANCE DOCUMENTS

After receipt of the processed PTD, the PSICP takes actions to produce allowance documents. Allowance documents are simply lists of maintenance-significant items (spare and repair parts, special tools, and consumables) that are required to support a system or equipment. These lists become candidates for stocking by an activity. These candidates are then coded to indicate whether or not they are authorized to be stocked and in what quantity. Other allowance documents are prepared for various functions or categories of non-installed material. While allowance documents are also produced for intermediate and depot level activities, the following discussion will focus on allowance documents for the organizational level activity; e.g., a ship. Chapter 6 contains more detailed information concerning allowance documents, including discussions of the various allowance computation models.

1.7.1   Allowance Parts List (APL)

An APL is an allowance document produced for every installed equipment in the Navy's inventory. It is a list of all maintenance-significant parts, special tools, and consumables that are necessary to maintain that equipment in operating condition. Even though an APL lists all maintenance-significant repair parts for a specific installed equipment, all parts listed may not be authorized to be stocked at the organizational level. For example, a ship may be authorized to replace a complex circuit board in an equipment, but not to repair the circuitry in the board. In this example, the circuit board would be authorized to be stocked on the ship, but the piece parts to repair the board would be coded to indicate they are not authorized for stock on the ship.

The decisions concerning which parts are authorized for stock on a ship take into consideration the maintenance plan, the allowance computation model, and various provisioning inputs and products, including replacement frequencies of repair parts, the capability of the ship's personnel to replace the part, and the importance of the equipment and the repair parts for that equipment to the ship's missions and the operation of the equipment, respectively. The maintenance plan specifies which repair parts are authorized to be replaced at the shipboard level. Replacement frequencies are initially called the Technical Replacement Factor (TRF). The TRF is the initial engineering estimate of the number of replacements, including failures, which will be made per part per year. Once an

equipment is operational in the Fleet for a length of time (normally two years), the Best Replacement Factor (BRF) is phased in to supersede the TRF. The BRF is based on the actual usage of each repair part as recorded in the Maintenance and Material Management (3-M) system. After establishment, the BRF is recalculated annually using the 3-M usage data and exponential smoothing. The Mission Criticality Code (MCC) of an equipment is an indicator of the importance of that equipment to the missions of the ship. The most important equipment receive additional emphasis when determining which, and how many, repair parts to stock onboard ship to keep the equipment operational. Similarly, the Military Essentiality Code (MEC) defines the importance of a specific part to the operation of the equipment in which it is installed. Repair parts more critical to the operation of an equipment are given additional emphasis when determining which parts to stock onboard a ship. The quantity of a specific item contained in a specific equipment, known as the Quantity Per Component (QPC), and the number of those equipment installed in the ship, called the Quantity of Components Installed (QCI), are other factors considered in determining how many of a specific repair part to stock onboard a ship. These are the principal considerations in determining which, and how many, repair parts are authorized to be stocked onboard a ship.

1.7.2 Allowance Equipage List (AEL)

An AEL is an allowance document prepared for various functions or categories of non-installed material which is collectively known as equipage. Equipage is an item of a durable nature, **not** including installed components or equipment. Although an AEL is a document very similar in appearance to an APL, its intended use is very different. While an APL lists repair parts necessary to maintain a particular equipment, an AEL lists material or equipment needed to perform a particular shipboard function, such as damage control, boiler water/feed water testing and treatment, galley gear, or items needed to operate an office. Additionally, APLs list mainly items to be kept in the supply store rooms, while AELs typically list items stored in the operating spaces. For example, typewriters and other office equipment are necessary on a ship, and an AEL would provide the quantity of typewriters, calculators, etc. authorized for a ship. An AEL for the damage control function would authorize a ship to carry specific quantities of fire axes, oxygen breathing devices, patch kits, fire hoses, fire hose nozzles, etc.

1.7.3 Coordinated Shipboard Allowance List (COSAL)

The COSAL is both a supply and a maintenance document. It is **the** allowance document for an individual ship and is the result of aggregating all the APLs and AELs applicable to a specific ship and calculating allowance quantities using various computation models. The overall COSAL performance objective is to provide required material for a 90 day period without replenishment. This means the COSAL authorizes a ship to carry enough material to operate for 90 days without replacing the material as it is used.

During this period, the COSAL is intended to satisfy 65% of <u>all</u> demands (gross effectiveness) from shipboard stocks and to provide an 85% availability (net effectiveness) for items authorized for stock onboard ship. The gross effectiveness goal means the shipboard technician should find the part he requires on the ship 65 times out of 100, and the net effectiveness goal means the parts authorized for stock onboard ship should be available on the ship 85 times out of 100.

A COSAL is tailored to an individual ship. It is produced for a ship when it is built and periodically updated throughout the life of the ship.

1.7.3.1 Hardcopy COSAL

Historically, the most prevalent COSAL found in the Fleet is a hardcopy one. A hardcopy COSAL is organized into three major parts and includes:

− Part I contains indexes of installed equipment that identify the APL/AEL number that applies to each.

 SOEAPL (Summary of Effective APLs/AELs) lists the APLs and AELs applicable to that ship.

- Section A: Nomenclature Sequence to APL.

- Section B: Service Application Sequence to APL/AEL.

- Section C: APL/AEL Sequence to Equipment Identification Code (EIC).

- Section D: EIC Sequence to APL/AEL.

- Section E: Work Breakdown Structure Sequence.

— Part II contains the allowance documentation (actual APLs and AELs) for the equipment installed in that ship.

- Section A: APLs

- Section B: Circuit Symbol Number to Reference Number (electronic APLs only in microfiche form)

- Section C: AELs

— Part III is the Stock Number Sequence List (SNSL) which lists repair parts and equipage that are authorized as onboard allowances. It also provides cross-reference information on part numbers and stock numbers which appear in the COSAL.

- Section A: Storeroom Items (SRIs)

- Section B: Operating Space Items (OSIs)

- Section CF: Maintenance Assistance Modules (MAMs)

- Section C: Old to New Stock Number Cross Reference

- Section D: Alternate Number to Stock Number Cross Reference

- Section E: General Use Consumable List (GUCL)

- Section F: Forms and Publications (I COG)

1.7.3.2 Automated COSAL

In an effort to simplify data storage onboard ship and move toward a "paperless" environment, the Navy is increasingly using computerized methods for managing supply and configuration information. Three Shipboard Non-tactical Automated Data Processing (SNAP) systems have been introduced to the Fleet: SNAP I is applicable to Special Accounting Class (SAC) 207 activities; SNAP II is for combatants; and SNAP III is a software upgrade to accommodate SNAP I and SNAP II on new hardware. SNAP III has been installed on some ships and will eventually replace all SNAP I and SNAP II systems, with their respective differences/unique processing retained under SNAP III.

The SNAP II system is the most prevalent SNAP system, and its database consists of five interactive subsystems. Three of these subsystems are germane to maintenance and supply: the Maintenance Data System (MDS) (also known as the Organizational Maintenance Management Subsystem (OMMS)); the Supply and Financial Management (SFM) Subsystem; and the Integrated Logistics Management (ILM) Subsystem.

Although not all inclusive, the following discusses some of the capabilities of these three subsystems.

1) MDS/OMMS Subsystem provides for: entry of Current Ship's Maintenance Project (CSMP) actions; generating and tracking Configuration Change Requests (OPNAV Form 4790/CK); accessing the technical document reference file; and maintaining the Ship's Equipment File.

2) SFM Subsystem provides automated accounting for parts ordering and monitoring, inventory management, and financial budgeting and reporting. It includes a financial module and stock record file.

3) ILM Subsystem allows for Configuration Analysis Group (CAG) processing, coordination with Repair Parts Analysis Group (RAG), and stock record file management (such as calculating shortages and generating requisitions). Used primarily during Integrated Logistics Overhauls (ILOs).

Concerning the automated version of a COSAL, the SNAP II database is comprised of a number of files that must function interactively. Within the MDS/OMMS Subsystem, the Ship's Equipment File contains the ship's configuration data. Linked to this file are the APL and COSAL files. The APL file contains the information regarding the APLs which have been registered within the Ship's Equipment File, while the COSAL file holds the parts data associated with each APL. Associated logistics data, such as technical manuals and maintenance index page information, are contained in the Logistics Data File. Allowance and inventory information that support the ship's configuration are kept within the SFM Subsystem, with the allowance data kept within the Stock Record File. A Cross Reference File maintains NSN and NICN cross reference information, and the Requisition File manages and tracks the status of the ship's requisition transactions.

1.8 CONFIGURATION MANAGEMENT

Once the initial COSAL is produced for a ship, it is imperative that any and all subsequent changes to a ship's equipment - from minor changes to an existing equipment to the total replacement of an equipment - be properly documented. The process of ensuring this documentation occurs is the essence of configuration management.

Changes are made to a ship's equipment and systems during the ship's operating cycle. These changes can be accomplished by various sources, including:

- Ship's Force

- Alteration Installation Team (AIT)

- Manufacturer's Technical Representative

- Mobile Ordnance Technical Unit (MOTU) Technician

- ISEA

- Intermediate Maintenance Activity (IMA)

- Shipyard

Further, the change can be extremely complex involving replacing and modifying numerous equipment or very simple, such as a minor modification to one equipment -- but **all** must be properly documented. The change can be called many things, including Ship Alteration (SHIPALT), Ordnance Alteration (ORDALT), Field Change (for electronic equipment), and Machinery Alteration (MACHALT). Since there are literally thousands of potential changes to a ship's configuration and numerous activities capable of making these changes, a system to document configuration changes as they are made is essential to ensure the SPM, the equipment's Life Cycle Manager (LCM), and other concerned activities/people have the current equipment configuration of a specific ship available to them. The Ship Configuration and Logistics Support Information System (SCLSIS) is the mechanism used to manage a ship's equipment configuration and other logistics information.

During a ship's operating cycle, the ship's force is responsible for configuration control, including configuration change reporting. The ship's force documents and reports changes in configuration using the Ship's Configuration Change Form (OPNAV Form 4790/CK) in accordance with OPNAVINST 4790.4(series), Subj: Ships Maintenance and Material Management (3-M) Manual. Configuration change reporting and control during depot level availabilities is the responsibility of the activity planning the availability and is accomplished in accordance with NAVSEA SL720-AA-MAN-010, Subj: Fleet Modernization Program Management and Operations Manual. As mentioned in paragraph 1.4.1.6, the CDM is always responsible for the accuracy and completeness of equipment configuration and logistics support information for assigned ship classes. Consequently, only the CDM can update the SCLSI database. More detailed explanations of configuration management and SCLSIS are contained in Chapter 7.

1.9 ALLOWANCE UPDATE AND MAINTENANCE

Just as configuration control must be accomplished once an initial COSAL is produced, the COSAL itself must be kept current in order for it to be the viable allowance document for the ship that it is supposed to be.

The SCLSI and NAVICP-M Weapon Systems File (WSF) are the principal databases used to produce allowance lists. Accordingly, changes to anything which will result in changes to allowance lists must

ultimately reside in the SCLSI and WSF. Changes which ultimately are included in these databases include:

- Configuration changes accomplished after production of the load COSAL, but prior to completion of SCN funding, are accomplished/documented by the SUPSHIP.

- Configuration changes reported during the operating cycle by ship's force using the OPNAV Form 4790/CK and reported during availabilities by the activity responsible for configuration management, as discussed in paragraph 1.8.

- Annual updates to the BRF, discussed in paragraph 1.7.1, are routinely accomplished by NAVICP-M using usage data collected by the 3-M system.

- Changes due to correction of technical deficiencies found by ship's maintenance technicians. Such corrections are limited to specific situations and are submitted using the Fleet COSAL Feedback Report (NAVSUP Form 1371) (FCFBR) in accordance with the COSAL Use and Maintenance Manual, SPCCINST 4441.170 (series).

- Reprovisioning, which results from modifications to equipment or maintenance plans or to correct errors in logistics documentation.

- Changes requested by a ship as an Allowance Change Request - Fixed (ACR-F) in accordance Chapter 8 of this manual and SPCCINST 4440.450 (series), Subj: Allowance Change Request - Fixed or using the Allowance Change Request (ACR) (NAVSUP Form 1220-2).

Once changes have been reflected in the WSF, revisions to the COSAL must be produced and distributed to the ship by NAVICP-M. This is accomplished approximately monthly using the Automated Monthly COSAL Maintenance Action Report (AMCMAR) or the Automated Shore Interface (ASI) update tape. The AMCMAR provides COSAL updates to both automated and non-automated ships, while the ASI tape is used for ships with Shipboard Non-tactical ADP (SNAP) II.

The COSAL Use and Maintenance Manual provides detailed procedures on how ships are to process these COSAL updates. Additionally, NAVICP-M normally produces an entire new COSAL when a ship undergoes a COSAL driving availability, which usually will include an ILO, and when special circumstances require one. Allowance update and maintenance are discussed in more detail in Chapter 8.

1.10 FINANCIAL MANAGEMENT

Numerous funding sources are involved in supply support, and several financial management concepts are important in order to understand supply support. These concepts are the Defense Business Operating Fund (DBOF), Outfitting funding, Buy-In Buy-Out concept, Interim Supply Support funding, and operations and maintenance funding. Overviews of these concepts are contained in the following paragraphs.

1.10.1 Defense Business Operating Fund (DBOF)

The DBOF includes all DOD revolving funds such as the stock fund and the Navy Industrial Fund (NIF). This discussion will focus on the stock fund portion of the DBOF. The stock fund is a revolving fund that provides the necessary capital to finance the purchase and maintenance of stocks of spare and repair parts and common supply items. A portion of the DBOF stock fund (called the Navy Stock Fund [NSF] prior to establishment of the consolidated DBOF) is managed by the NAVICP to provide the items required for support and operation of the Navy. As a revolving fund, it consists of funds and material, the sum of which is relatively constant. Figure 1-3 illustrates how a revolving stock fund works.

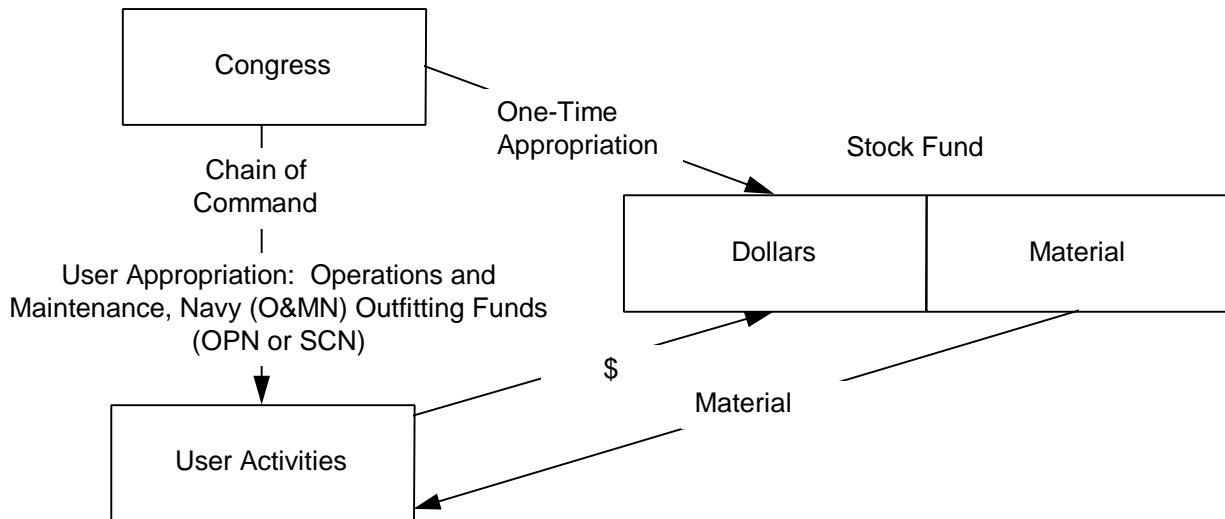**STOCK FUND OPERATIONS**

Figure 1-3 How a Stock Fund Works

Figure 1-3 shows that a stock fund is initially established by a one-time Congressional appropriation, whose funds are used to buy material in anticipation of its need by the operating forces. As user activities need material, they buy it from the stock fund using appropriated funds provided to them for some purpose, such as operations and maintenance. If the item being bought is a repairable item the user pays either the net price or the standard price. The net price is the average cost to repair a particular item and is what is paid when the user also turns-in the failed item to the supply system. If the failed item is not returned or if there is no failed item to turn-in, the user must pay the full price to procure a new item (the standard price). The sales of material from the stock fund generate cash to the stock fund, which is then used to buy or replenish the material sold, which can include repair of repairable items. Each service and the DLA operate their own stock fund, each of which is a portion of the DBOF.

1.10.2 Outfitting Funds

NAVSEA outfitting funds are used to buy outfitting material. Outfitting material consists of the initial spares and repair parts required to make a ship, system, or equipment self-sufficient for a specified period of time and must be identified as an authorized stock item by one of the ship's allowance documents. Outfitting funds pay for the initial material authorized by the allowance documents, but do not pay for stock replenishment or for material consumed in use or used to repair equipment. Outfitting occurs on new construction and conversion ships, as well as on operational ships. Outfitting is financed through the Shipbuilding and Conversion, Navy (SCN) appropriation for new construction and conversion ships funded by SCN. Outfitting for operational ships, Navy-owned equipment onboard Coast Guard ships, and for selected shore activities is financed by the Other Procurement, Navy (OPN) account. Outfitting funds, both SCN and OPN, are managed by NAVSEA 041.

1.10.3 Buy-In Buy-Out Concept

NAVSEA prepares Program Support Data (PSD) Sheets to document the requirement for spares and repair parts for all equipment acquisitions requiring such material. PSD sheets indicate whether the spares and repair parts are needed for interim support, initial outfitting, or follow-on support. PSD is forwarded to the PSICP (NAVICP for NAVSEA equipment) where it is used to prepare the DBOF "Buy-in" budget. Using the DBOF, the PSICP "buys-in" material that is stored in the supply system. This material is subsequently "sold" to users for the initial and follow-on outfittings of authorized allowance Onboard Repair Parts (OBRPs).

The OBRPs are ordered sufficiently in advance of the anticipated
need indicated in the PSD so they are available when requested by
the user. (Note: the supply term "procurement lead time" is used
to denote the time needed: to award a contract, to manufacture the
item, and to deliver the material to the supply system.) The
NAVSEA outfitting account, either SCN or OPN as appropriate, is
then used to "buy-out" the initial and follow-on outfittings of
OBRPs. Additional discussion of the "buy-in buy-out" concept is
contained in Chapter 3.

1.10.4 Interim Supply Support (ISS) Funds

ISS is required to support systems and equipment when their initial
installation occurs before the MSD. The account that funds ISS is
managed by NAVSEA 041. However, it is the responsibility of the
ship, system, or equipment acquisition manager to properly document
and notify NAVSEA 041 of the ISS funds required so the funds are
available when needed. Chapter 5 contains a more detailed
discussion of ISS.

1.10.5 End Use Funds

End use funds are normally operations and maintenance funds
controlled by the Type Commander (TYCOM) and provided to the ship
as a budget to fund routine operations and maintenance. These
funds also pay for stock replenishment requisitions for non-load
carrying ships and shore activities. These requisitions are for
material to replace items used while in use or drawn from the
authorized allowances of the ship or shore activity.

1.11 MATERIAL ISSUE

The most common method of supplying material to a user (ship) is to
allow the activity initially receiving a requisition (normally a
stock point) to make an issue when the requested item is in stock.
 If the requested material is not carried, not in stock, or has
been issue-restricted by the Inventory Manager (IM), the activity
receiving the requisition will pass the requisition to the IM for
action. If the material is available at another stock point, the
IM may refer the requisition to that stock point to make the issue.
 If the requisition is for an ISS item, the IM will refer the
requisition to the ISS stock point.

If the item requested is not available anywhere in the supply
system, the IM will take action to initiate a procurement using the
DBOF and will have the material shipped directly to the
requisitioner. Such a procurement may be incorporated with a
procurement for supply system stock or may be a "stand alone"
procurement. If the only items in the supply system are restricted
to support special programs, the IM will evaluate the need for the
item and authorize the issue, backorder the requisition against a

procurement with expected material delivery, initiate a procurement
to satisfy the requisitioner's need, or cancel the requisition and
tell the requisitioner that it is not authorized to have the
requested item. All items for which NAVSEA is the inventory
manager are issue-restricted.

1.12   INVENTORY MANAGEMENT

All items in the supply system are managed by an Inventory Manager
(IM). Navy IMs include the HSCs, other program offices, and
NAVICP. Non-Navy IMs include the DLA ICPs, other services, and the
General Services Administration (GSA). The material issue process
just discussed is what initiates inventory management. The IM
maintains visibility and control over assigned material assets
through daily reports of transactions from stock points around the
world. These transaction reports include receipts, issues, and
changes in the condition of the material such that it changes from
Ready For Issue (RFI) to Not-RFI (NRFI) and vice versa. When the
worldwide on-hand balance of RFI material drops to a point where
additional material is required to meet forecasted needs, the IM
initiates a procurement order for new material or directs the
repair of failed units previously returned by user activities or of
other NRFI material. The forecast of future demand is derived from
the historical number of requisitions per month, the historical
average quantity of material requested per requisition, and known
future requirements based on documentation such as PSD, as
discussed in paragraph 1.10.3. The timing of the procurement and
the quantity ordered also depend on factors used in all inventory
models such as safety level and economic order quantity.

1.13   ACQUISITION REFORM

Secretary of Defense Policy memo of 29 June 94, established
acquisition reform initiatives within the DoD. Assistant
Secretary of the Navy (ASN)(Research Development & Acquisition
[RD&A]) memo of 27 July 94, implemented the DoD initiatives
within the Department of the Navy. It is the Department of the
Navy's intent to fully implement the principles of the Department
of Defense acquisition reform initiatives. NAVSEA is developing
documentation to provide supportability policy/guidance for the
implementation of the Secretary of Defense policy as implemented
by the ASN RD&A for weapons system acquisitions, including the
support of commercial off the shelf (COTS) equipment and non-
developmental items (NDI). This policy/guidance applies to all
acquisition programs and automated information systems programs
for new systems, major modification, upgrades to current systems,
NDI, and commercial items. Acquisition plans shall address
compliance with this new policy/ guidance. It will remain in
effect until such guidance is amended or incorporated in updates
to SECNAVINST 5000.2A. The DoD policy memo encouraged innovative
strategies for logistically supporting equipment. However,
NAVSEA policy requires such changes to be effectively seamless to

the operator and the maintainer of the equipment, and the
maintenance philosophy must be consistent across the platform.
The Navy's intent is to buy cost-effective support to satisfy
user requirements. Acquisition reform is being accomplished in
two primary areas: (1) Specifications and Standards Reform plus
(2) Supportability Considerations. These two areas are discussed
in the following paragraphs.

1.13.1 Specification and Standards Reform

In the area of Specifications and Standards Reform, DoD is moving
toward a greater use of performance based and commercial
specifications and standards in order to increase DOD's access to
commercial state-of-the-art technology and to expand the defense
industrial base. As a result, the push is toward greater use of
commercially available equipment on all Navy programs. It is
imperative that all equipment, including commercially available
equipment, be logistically supported for its life cycle, and that
the logistics support that is planned and provided must be
compatible with the existing Navy support infrastructure. It is
NAVSEA's intent to buy cost-effective support to satisfy user
requirements. The primary emphasis is to find commercial
specifications or develop performance based specifications and
standards for use in acquisition of systems and equipment.

1.13.2 Supportability Considerations

The operational scenario and readiness objectives shall form the
basis for supportability considerations. Total life cycle cost,
including logistic support, must be demonstrated as representing
the lowest cost of ownership to the Navy. Logistic support
implications must be fully considered to assure that support will
be provided in an effective and efficient manner and in full
consonance with program and user requirements. The following
considerations are guidelines that should be weighed by Navy
Program Managers and their Integrated Product Teams (IPTs),
Program Executive Officers(PEOs), Direct Reporting Program
Managers (DRPMs), and system and equipment acquisition managers.

A. Total Cost of Ownership - Ownership costs include the cost to
   acquire the system and the cost to operate, support, and
   dispose of the system. PMs must consider the life cycle cost
   implications of Acquisition Reform initiatives in their
   application. The acquisition strategy must be carefully
   examined and trade-offs of all long term logistic
   considerations conducted. These trade-offs should consider
   lowest total cost of ownership to the Navy over the expected
   life cycle of the item.

B. Maintenance Concept - The maintenance concept expresses the
   strategy for maintaining the platform and system at a defined
   level of readiness in support of the operational scenario. It

includes preventive maintenance, corrective maintenance, and overhaul. It must consider maintainability at all maintenance levels (i.e., organizational, intermediate, and depot) and should address the scope of required work at each level. Program Managers shall consider alternative maintenance concepts in support of the operational scenario as inputs to life cycle cost analyses and design trade-offs. Maintenance concepts for systems and equipment selected for installation on platforms shall be consistent with the maintenance concept of the platform.

C. Standardization - Standardization is a process used to achieve the greatest practical uniformity of items of supply and engineering practices, to ensure the minimum feasible variety of such items and optimum interchangability of technical information, training, equipment, parts, and components. A welcome byproduct of standardization is a reduction of technical documentation and its attendant maintenance and increased transferability of operational and maintenance skills. All of these factors translate to reduced total cost of ownership. Standardization shall be an essential element of the PM's consideration of the life cycle cost implications of Acquisition Reform initiatives and evaluation of contractor proposals. Program Managers shall consider contract requirements and incentives to maximize, as practicable, standardization.

D. Supportability - Program Managers must ensure that supportability requirements fully consider life cycle costs including the short life spans resulting from technology insertion and obsolescence. They shall develop interdependent support and design considerations that relate consistently to readiness objectives. This planning shall include the post production phase to ensure continued attainment of readiness objectives with economical logistic support. The Program Manager shall identify the most cost-effective approach to support the system or equipment when fielded and assure the required support elements, data, and information are developed and acquired.

The above considerations are designed to highlight the logistics support requirements of NAVSEA products. PMs are cautioned not go overboard in the quest for commercial, COTS, and NDI acquisitions. It is important for the Navy not to lose the benefits of standardization and non-proliferation of part numbers, plus avoid the introduction of logistics support systems that present a different "face" to the Fleet customers. The intent is not to limit the "behind the scenes" support systems; however, the "store-front systems" must be "effectively seamless to the operator and maintainer of the equipment."

The Supportability policy is being implemented through the current processes used to develop and acquire systems and equipment, such as the IPT, the Acquisition Review Board (ARB)

and the Independent Logistic Assessment (ILA) processes. The
NAVSEA ARB process (governed by NAVSEAINST 5000.3D of 14 June
1994) and the NAVSEA ILA process (governed by NAVSEAINST 4105.1
of 28 January 1995) provide tools for PMs to assess these
logistic support areas at each milestone decision point. The IPT
concept provides a vehicle for a more continuous effort on these
elements. The ILA instruction identifies the logistic areas to
be assessed, including supportability (total cost of
ownership/life cycle cost, maintenance planning, standardization,
and supportability). Program Managers can execute, track, and
manage the supportability policy requirements through their
routine IPT work and meetings, the ARBs and ARB reports, ILS
management team meetings, plus ILA reports and ILA follow-up
reports. The NAVSEA ILS Procedures Manual, Volume II, contains
detailed information on the conduct of ILS management reviews
that PMs can use to manage the implementation of this policy.
Examples include: program support planning, Supply Support
Management Plan, Interim Support/Transition Plan, MSD milestone
planning, maintenance planning to define levels of maintenance,
depot maintenance planning, and direct Fleet support
requirements.

APPENDIX A ACRONYMS

ACRONYM   DEFINITION

3-M   . . . .   Maintenance and Material Management
ACR   . . . .   Allowance Change Request
ACR-F . . .   Allowance Change Request - Fixed
AEL   . . . .   Allowance Equipage List
AIT   . . . .   Alteration Installation Team
APA   . . . .   Appropriation Purchase Account
APL   . . . .   Allowance Parts List
ASI   . . . .   Automated Shore Interface
ASO   . . . .   Aviation Supply Office (now NAVICP-P)
AMCMAR . . .   Automated Monthly COSAL Maintenance Action Report
BRF   . . . .   Best Replacement Factor
CAG   . . . .   Configuration Analysis Group
CAGE . . . .   Commercial and Government Entity
CD/V . . . .   Concept Demonstration/Validation
CDM   . . . .   Configuration Data Manager
COG   . . . .   Cognizance Symbol
COSAL . . .   Coordinated Shipboard Allowance List
CSMP . . . .   Current Ship's Maintenance Project
DBOF   . . .   Defense Business Operating Fund
DLA   . . . .   Defense Logistics Agency
DLR   . . . .   Depot Level Repairable
DLSC . . . .   Defense Logistics Services Center
DOD   . . . .   Department of Defense
DOP   . . . .   Designated Overhaul Point
DRPM . . . .   Direct Reporting Program Manager
EIC   . . . .   Equipment Identification Code
EMD   . . . .   Engineering and Manufacturing Development
FCFBR . . .   Fleet COSAL Feedback Report
FISC . . . .   Fleet and Industrial Supply Center
FMECA . . .   Failure Mode, Effects & Criticality Analysis
FMS   . . . .   Foreign Military Sale
FOSSAC . . .   Fitting Out Supply Support Assistance Center
FSC   . . . .   Federal Supply Classification
FSCM . . . .   Federal Supply Code for Manufacturers (now CAGE)
FSG   . . . .   Federal Supply Group
GSA   . . . .   General Services Administration
GUCL . . . .   General Use Consumable List
HM&E . . . .   Hull, Mechanical, and Electrical
HSC   . . . .   Hardware Systems Command
ICP   . . . .   Inventory Control Point
ILM   . . . .   Integrated Logistics Management
ILO   . . . .   Integrated Logistics Overhaul
ILS   . . . .   Integrated Logistics Support
ILSP . . . .   Integrated Logistics Support Plan
IM . . . . .   Inventory Manager
IMA   . . . .   Intermediate Maintenance Activity
INCO . . . .   Installation and Check Out
IOC   . . . .   Initial Operational Capability
ISEA . . . .   In Service Engineering Agent

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ISS    . . . .    Interim Supply Support
LCM    . . . .    Life Cycle Manager
LORA . . . .      Level of Repair Analysis
LSA    . . . .    Logistics Support Analysis
MACHALT  . .      Machinery Alteration
MAM    . . . .    Maintenance Assistance Module
MCC    . . . .    Mission Criticality Code
MDS    . . . .    Maintenance Data System
MEC    . . . .    Military Essentiality Code
MOTU . . . .      Mobile Ordnance Technical Unit
MRD    . . . .    Material Required Date
MSD    . . . .    Material Support Date
NATO . . . .      North Atlantic Treaty Organization
NAVICP-M . .      Navy Inventory Control Point-Mechanicsburg
                      (formerly SPCC)
NAVICP-P . .      Navy Inventory Control Point-Philadelphia
                      (formerly ASO)
NAVSEA . . .      Naval Sea Systems Command
NAVSEALOGCEN      Naval Sea Logistics Center
NAVSUP . . .      Naval Supply Systems Command
NCB    . . . .    National Codification Bureau
NICN . . . .      Navy Item Control Number
NIF    . . . .    Navy Industrial Fund (now part of DBOF)
NIIN . . . .      National Item Identification Number
NRFI . . . .      Not Ready For Issue
NSA    . . . .    Naval Supervising Activity
NSC    . . . .    Naval Supply Center
NSD    . . . .    Navy Support Date
NSD    . . . .    Naval Supply Depot
NSF    . . . .    Navy Stock Fund (now part of DBOF)
NSN    . . . .    National Stock Number
OBRP . . . .      Onboard Repair Part
OEM    . . . .    Original Equipment Manufacturer
OMMS . . . .      Organizational Maintenance Management Subsystem
OPN    . . . .    Other Procurement, Navy
ORDALT . . .      Ordnance Alteration
OSA    . . . .    Outfitting Supply Activity
OSI    . . . .    Operating Space Item
P-NICN . . .      Permanent NICN (Navy Item Control Number)
PARM . . . .      Participating Manager
PEO    . . . .    Program Executive Office
POC    . . . .    Preliminary Operational Capability
PSD    . . . .    Program Support Data
PSICP  . . .      Program Support ICP (Inventory Control Point)
PTD    . . . .    Provisioning Technical Documentation
QCI    . . . .    Quantity of Components Installed
QPC    . . . .    Quantity Per Component
RAG    . . . .    Repair Parts Analysis Group
RCM    . . . .    Reliability Centered Maintenance
RFI    . . . .    Ready For Issue
SAC    . . . .    Special Accounting Class
SCLSI  . . .      Ship Configuration and Logistics Support Information
SCLSIS . . .      Ship Configuration and Logistics Support Information
                      System
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SCN    . . . .    Shipbuilding and Conversion, Navy
SFM    . . . .    Supply and Financial Management
SHIPALT   . .    Ship Alteration
SIMA . . . .     Shore Intermediate Maintenance Activity
SNAP . . . .     Shipboard Non-tactical ADP
SNSL . . . .     Stock Number Sequence List
SOEAPL . . .     Summary Of Effective APLs/AELs
SPCC . . . .     Ships Parts Control Center (now NAVICP-M)
SPM    . . . .    Ship Program Manager
SRI    . . . .    Storeroom Item
SSMP . . . .     Supply Support Management Plan
SUPSHIP   . .    Supervisor of Shipbuilding, Conversion, and Repair
T-NICN . . .     Temporary NICN (Navy Item Control Number)
TOB    . . . .    Technical Operating Budget
TRF    . . . .    Technical Replacement Factor
TSA    . . . .    Technical Support Activity
TYCOM    . . .    Type Commander
WPN    . . . .    Weapon Procurement, Navy
WSF    . . . .    Weapon Systems File
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